



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,679	08/27/2001	Majid L. Riaziat	267/032	5559
23639	7590	10/19/2005	EXAMINER	
BINGHAM, MCCUTCHEN LLP THREE EMBARCADERO CENTER 18 FLOOR SAN FRANCISCO, CA 94111-4067			LACYK, JOHN P	
		ART UNIT	PAPER NUMBER	
		3735		

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,679	RIAziAT ET AL.	
	Examiner	Art Unit	
	John P. Lacyk	3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 29-32,34,35,38-45,48,49 and 52-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 29-32,34,35,38-45,48,49 and 52-54 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/22/05; 4/01/05; 2/17/05; 11/01/02</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____ . |

Art Unit: 3735

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 29-32, 34-35, 38-45, 48-49, 52-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 48 contains the trademark/trade name STYROFOAM. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a light, resilient polystyrene plastic and, accordingly, the identification/description is indefinite.

3. Claims 30 and 53 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: The claims are directed to a marker system however all that is claimed is the marker. The optical imaging apparatus is not a positively recited element in that the only reference to it is

Art Unit: 3735

that the markers are detectable or viewable by the imaging apparatus, the imaging apparatus is not positively claimed until claims 52 and 54. The claims appear to need to have the imaging apparatus positively claimed in order to claim a complete system and not just the marker.

In claim 53 the two or more reflective markers have "known relative positioning" but it does not state what the positioning is relative to, i.e. relative to each other, the body, the marker block. Similarly with claim 40. In claim 42, "said one or more optical imaging apparatus" lacks positive antecedent basis, as discussed above the imaging apparatus is not a positively claimed element.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 29-31, 34-35, 38-45, 49, 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Josefsson et al (A flexible high-precision video system for digital recording of motor acts through lightweight reflex markers) in view of Leis (6,061,644).

Josefsson et al discloses retro-reflective markers and teaches (page 121) that the markers can be spherical or half-spherical (hemispherical). The markers use an imaging apparatus (CCD video camera) to detect the markers and make sure they are

positioned properly. The processing is also discussed as being done in real-time. Josefsson et al discloses the claimed device except specifically teaching the marker having two or more reflective elements or reference locations or the use of a marker block. Leis discloses a system for determining position and orientation of a body using retro-reflective markers. Leis discloses (column 3, lines 55-67) the use of a rigid body (11), which is considered to be a marker block, and the body contains a plurality (at least two) retro-reflective point markers, which is considered to meet the limitations of two or more reflective elements or reference locations.

While Josefsson et al teaches a half-spherical marker which would inherently contain a block or some body to locate the markers on and also would inherently have at least two reflective elements or reference locations, Leis, as taught above, clearly shows that such elements are well known to be used with a retro-reflective marker. Therefore a modification of Josefsson et al to specifically include a block and at least two or more reflective elements or locations would have been obvious in view of Leis since Leis teaches that such markers using retro-reflective material is well known in the art. Further the use of a spherical or hemispherical shape would also inherently allow for the multiple markers or locations to be simultaneously detected by the imaging apparatus.

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 49 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 49 claims a positive connection to the body, i.e. a fixture that attaches to a patient body, language such as "adapted to attach" would correct the positive connection problem.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 30-32, 48-49 and 52 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for having two reference locations on a surface area, does not reasonably provide enablement for both reference locations being simultaneously detectable by an imaging apparatus. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. The specification fails to support the limitation of how both locations are simultaneously detectable by the imaging apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Lacyk whose telephone number is 571-272-4728. The examiner can normally be reached on Mon-Fri, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone

Art Unit: 3735

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John P Lacyk
Primary Examiner
Art Unit 3735

J.P. Lacyk